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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,424	12/12/2000	Shiro Kamiyama	Q-62080	7790

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Sughrue Mion Zinn Macpeak & Seas
2100 Pennsylvania Avenue N W
Washington, DC 20037-3202

EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 08/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/719,424

Applicant(s)

KAMIYAMA ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other: _____

DETAILED ACTION

1. All outstanding rejections and objections are overcome by applicants' amendment filed 5/24/02. Given that the new grounds of rejection as set forth below are necessitated by applicants' amendment, the following action is final.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (U.S. 5,886,098) in view of Incorvia et al. (U.S. 5,534,1925) and Kawakami et al. (U.S. 5,574,101).

Ueda et al. disclose a resin composition comprising 2.91-38.8% polyamide elastomer, i.e. polyetherester amide, 60-97% graft copolymer which is obtained by polymerizing monomers including styrene and acrylonitrile, in the presence of polymer such as polybutadiene, 0-40% modified vinyl type polymer including copolymers containing at least one ethylenically unsaturated monomer wherein the polymer contains at least one functional group such as carboxyl, epoxy, or amino group, and 0.09-1.2% alkali metal salt. It is further disclosed that the polyetherester amide is made by reacting polyol such as polyethylene glycol with aminocarboxylic acid or lactam (col.2, lines 36-46, col.3, lines 1 and 16-18, col.4, lines 10-16, 48-55, and 59-63, col.5, lines 7-10, 26-27, and 50, col.5, line 64-col.6, line 8, col.6, lines 59-67, col.7, lines 3-55, col.8, lines 52-67, col.11, lines 14-20 and 44-48, and col.12, lines 4-7).

Although there is no explicit disclosure that the formed resin article disclosed in Ueda et al. is excellent in electrostatic coatability, on the one hand, given that Ueda et al. disclose a composition identical to that presently claimed, it is clear that the article formed from such composition would intrinsically possess electrostatic coatability as presently claimed.

Alternatively, on the other hand, Ueda et al. disclose an antistatic resin composition and it is well known as found in Incorvia et al., that antistatic agents are used to enhance the receptivity of surfaces to electrostatically applied coatings (col.2, lines 6-9), and thus it is clear that the formed article of Ueda et al. is excellent in electrostatic coatability as presently claimed.

The difference between Ueda et al. and the present claimed invention is the requirement in the claims of specific type of alkali metal salt.

Kawakami et al., which is drawn to resin composition comprising polyamide, disclose the use of alkali metal salt such as sodium dodecylbenzenesulfonic acid in order to improve the antistatic effect (col.7, lines 16-21 and 28-35).

In light of the motivation for using specific alkali salt disclosed by Kawakami et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such salt in the composition of Ueda et al. in order to produce a composition with improved antistatic properties, and thereby arrive at the claimed invention.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. in view Incorvia et al. and Kawakami et al. as applied to claims 1-4 and 7 above, and further in view of Seshadri et al. (U.S. 5,219,493) and EP 278500.

The difference between Ueda et al. and the present claimed invention is the requirement in the claims that the formed resin article is electrostatically coated.

While Ueda et al. disclose forming resin articles from the resin composition, there is no disclosure that these articles are electrostatically coated.

EP 278500 discloses that polyamide compositions comprising polyamide, graft copolymers, and modified vinyl polymers, such as those disclosed in either JP 04337334, Ueda et al., or Fukumoto et al. are widely used in automobile parts (page 1, lines 15-17).

Seshadri discloses that thermoplastic components used in automobile parts are commonly provided an electrostatic surface coating to produce an attractive, glossy finish (col.1, lines 15-17 and col.5, lines 63-66).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to apply an electrostatic coating to the resin articles of Ueda et al. in order to produce an article with improved appearance, and thereby arrive at the claimed invention.

5. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukumoto et al. (U.S. 5,096,995) in view of Incorvia et al. (U.S. 5,534,192).

Fukumoto et al. disclose a resin composition comprising 1-40% polyamide elastomer, i.e. polyetherester amide, 1-95% graft copolymer which is obtained by polymerizing monomers including styrene and vinyl cyanide, in the presence of rubbery polymer, 1-95% modified vinyl type polymer including copolymers containing at least one ethylenically unsaturated monomer wherein the polymer contains at least one functional group such as carboxyl, epoxy, or amino group, and 0.1% alkali metal salt such as sodium dodecylbenzenesulfonic acid. It is further

disclosed that the polyetherester amide is made by reacting polyol with aminocarboxylic acid or lactam (col.1, line 65-col.2, line 5, col.7, lines 48-51, col.8, lines 1-5 and 35-48, col.9, lines 5-22, col.12, lines 15-24, and example 12).

Although there is no explicit disclosure that the formed resin article disclosed in Fukumoto et al. is excellent in electrostatic coatability, on the one hand, given that Fukumoto et al. disclose a composition identical to that presently claimed, it is clear that the article formed from such composition would intrinsically possess electrostatic coatability as presently claimed.

Alternatively, on the other hand, Fukumoto et al. disclose an antistatic resin composition and it is well known as found in Incorvia et al., that antistatic agents are used to enhance the receptivity of surfaces to electrostatically applied coatings (col.2, lines 6-9), and thus it is clear that the formed article of Fukumoto et al. is excellent in electrostatic coatability as presently claimed.

The only deficiency of Fukumoto et al. is that Fukumoto et al. disclose the use of 0.1% alkali metal salt, while the present claims require 0.2-5% alkali metal salt.

It is apparent, however, that the instantly claimed amount of alkali metal salt and that taught by Fukumoto et al. are so close to each other that the fact pattern is similar to the one in *In re Woodruff*, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a "slight" difference in the ranges the court held that such a difference did not "render the claims patentable" or, alternatively, that "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties".

In light of the case law cited above and given that there is only a "slight" difference between the amount of alkali metal salt disclosed by Fukumoto et al. and the amount disclosed in the present claims and further given the fact that no criticality is disclosed in the present invention with respect to the amount of alkali metal salt, it therefore would have been obvious to one of ordinary skill in the art that the amount of alkali metal salt disclosed in the present claims is but an obvious variant of the amounts disclosed in Fukumoto et al., and thereby one of ordinary skill in the art would have arrived at the claimed invention.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukomoto et al. in view of Incorvia et al. as applied to claims 1-4 and 7 above, and further in view of EP 278500 and Seshadri (U.S. 5,219,493).

The difference between Fukomoto et al. in view of Incorvia et al. and the present claimed invention is the requirement in the claims that the formed resin article is electrostatically coated.

While Fukomoto et al. disclose forming resin articles from the resin composition, there is no disclosure that these articles are electrostatically coated.

EP 278500 discloses that polyamide compositions comprising polyamide, graft copolymers, and modified vinyl polymers, such as those disclosed in Fukumoto et al. are widely used in automobile parts (page 1, lines 15-17).

Seshadri discloses that thermoplastic components used in automobile parts are commonly provided an electrostatic surface coating to produce an attractive, glossy finish (col.1, lines 15-17 and col.5, lines 63-66).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to apply an electrostatic coating to the resin articles of Fukomoto et al. in order to produce an article with improved appearance, and thereby arrive at the claimed invention.

Response to Arguments

7. Applicants arguments with respect to JP 04337334 have been considered but they are moot in view of the discontinuation of this reference against the present claims.

8. Applicants' arguments filed 5/24/02 have been fully considered, but with the exception of arguments relating to JP 04337334, they are not persuasive.

Specifically, applicants argue that:

(a) The resin composition of Ueda et al. does not contain alkali metal salt as presently claimed.

(b) Kawakami et al. merely disclose that the use of an alkali metal salt improves antistatic effects but does not teach or suggest electrostatic coatability.

(c) Comparative data in specification establishes unexpected or surprising results over the cited prior art.

(d) Amount of alkali metal salt utilized in Fukomoto et al. is outside the scope of the present claims.

(e) Fukomoto et al. do not disclose resin composition for electrostatic coating as presently claimed.

With respect to argument (a), applicants argue that Ueda et al. do not disclose specific alkali metal salt as presently claimed and therefore do not teach or suggest the essential conditions to form an article excellent in electrostatic coatability.

It is agreed that Ueda et al. do not disclose specifically claimed salt, which is why Ueda et al. is now used in combination with Kawakami et al.

Further, it is noted that claims 1-6 are drawn to resin composition not article. Although there is no explicit disclosure in Ueda et al. that the resin composition is for electrostatic coating, the recitation in the claims that the resin composition is “for electrostatic coating” is merely an intended use. Applicants attention is drawn to MPEP 2111.02 which states that intended use statements must be evaluated to determine whether the intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

Given that Ueda et al. disclose resin composition comprising rubber-reinforced resin, polyamide elastomer, modified vinyl polymer, and alkali metal salt as presently claimed, it is clear that the resin composition of Ueda et al. would be capable of performing the intended use, i.e. for electrostatic coating, presently claimed. Although Ueda et al. do not disclose specific salt as presently claimed, it is noted that the salts disclosed by Ueda et al., i.e. lithium chloride, are identical to those recited on page 20, lines 4-23 of present specification as salts suitable for use in the present invention. Thus, it is clear that the composition of Ueda et al. is capable of forming article excellent in electrostatic coatability.

As stated above, Ueda et al. is now used in combination with Kawakami et al., which teach the use of specific alkali salt as presently claimed. It is the examiner's position that given that Ueda et al. in combination with Kawakami et al. disclose resin composition as presently claimed, it would intrinsically form an article excellent in electrostatic coatability.

With respect to argument (b), it is noted that col.1, lines 9-17, of Kawakami et al. disclose that the reference is drawn to resin composition capable of preventing electrostatic electrification in various parts of electronics products.

Applicants argue that electrostatic coatability is not achieved by just increasing electrical conductivity but by simultaneously providing sufficient amount of coating, good adhesion of coating, etc. and using composition excellent in various physical properties.

Although there is no disclosure in Kawakami et al. of rubber-reinforced resin or modified vinyl polymer as presently claimed, note that Kawakami et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nièvelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, and in combination with the primary reference, discloses the presently claimed invention. If the secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

Further, it is noted that there is no requirement in the claims regarding amount of coating and that it is the examiner's position that the combination of Ueda et al. with Kawakami et al.

discloses composition intrinsically excellent in various physical properties and coating adhesion given that the combination discloses composition as presently claimed.

With respect to argument (c), applicants argue that good electrostatic coatability depends not only on the salt, but the other types and amount of ingredients present in the resin composition. As evidence to support their position, applicants point to comparative examples 3 and 5 in the present specification which compare resin composition within the scope of the claims with resin composition outside the scope of the present claims, i.e. comprising no vinyl modified vinyl polymer (comparative example 3) or comprising rubber-reinforced resin and modified vinyl polymer in amounts outside the scope of the present claims (comparative example 5). It is shown that the resin composition is superior in terms of adhesion or appearance.

However, it is the examiner's position that the data does not establish unexpected or surprising results over the cited prior art. Firstly, it is noted that there is not proper side-by-side comparison between the resin composition of the inventive examples and resin composition of the comparative examples. For instance, comparative example 3 discloses resin composition comprising 40 parts rubber-reinforced resin, 58 parts polyamide elastomer, and 2 parts alkali metal salts. However, the resin compositions of examples 1-3 use higher amounts of rubber-reinforced resin and much lower amounts of polyamide elastomer. Thus, it is not clear if the difference between the compositions is due to the absence of modified vinyl polymer or the difference in amounts of rubber-reinforced resin and polyamide elastomer. Secondly, it is the examiner's position that the data does not establish unexpected or surprising results over the cited prior art given that Ueda et al. already disclose the use of modified vinyl polymer as well

as rubber-reinforced resin, alkali salt, and polyamide elastomer in amounts as presently claimed. With respect to Kawakami et al., as explained with respect to argument (b) above, Kawakami et al. is not the “closest” prior art but rather a teaching reference, and therefore it is not necessary for this reference to disclose all the ingredients presently claimed.

With respect to argument (d), it is agreed that the amount of alkali metal salt utilized in Fukumoto et al. falls outside the scope of the present claims. However, it is apparent that the instantly claimed amount of alkali metal salt and that taught by Fukumoto et al. are so close to each other that the fact pattern is similar to the one in *In re Woodruff*, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a “slight” difference in the ranges the court held that such a difference did not “render the claims patentable” or, alternatively, that “a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties”.

In light of the case law cited above and given that there is only a “slight” difference between the amount of alkali metal salt disclosed by Fukumoto et al. and the amount disclosed in the present claims and further given the fact that no criticality is disclosed in the present invention with respect to the amount of alkali metal salt, it therefore would have been obvious to one of ordinary skill in the art that the amount of alkali metal salt disclosed in the present claims is but an obvious variant of the amounts disclosed in Fukumoto et al., and thereby one of ordinary skill in the art would have arrived at the claimed invention.

With respect to argument (e), with respect to claims 1-6 as stated with respect to argument (a) above, the recitation in the claims that the resin composition is “for electrostatic coating” is merely an intended use and given that Fukomoto et al. disclose resin composition comprising rubber-reinforced resin, polyamide elastomer, modified vinyl polymer, and alkali metal salt as presently claimed (see also response to argument (d)), it is clear that the resin composition of Fukomoto et al. would be capable of performing the intended use, i.e. for electrostatic coating, presently claimed. Similarly, it follows that with respect claims 7-8 which are drawn to an article, given that Fukomoto et al. disclose resin composition as claimed, such composition would necessarily intrinsically form an article excellent in electrostatic coatability.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1714


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Callie Shosho
August 15, 2002



VASU JAGANNATHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700